

REMARKS

Claims 9-20 remain pending after amendment. Claims 15-20 stand withdrawn from consideration.

Rejection under 35 USC 102(b)

Claims 9-11 stand rejected under 35 USC 102(b) as being unpatentable over Ruijten U.S. Patent No. 4,554,071.

In support of the rejection, the Examiner takes the position that the reference discloses a pre-column for pre-concentrating substances to be chromatographed along with a separating column. The disclosed system is stated to include a column that is filled with a suitable carrier material or absorption agent. The carrier material is stated to be enclosed in the column between two filters. The pre-column is stated to be connected downstream to a separation or chromatography column, with the adsorbed material being eluted in the separation column by means of a suitable solvent. This rejection is respectfully traversed.

By way of review, applicants' invention is characterized by the component-concentrating column (M) including a carrier material in the form of a membrane.

This provides for the product of the invention having unexpected advantages including (1) the volume of the carrier material portion can be reduced and the dead volume can be reduced, (2) a trapping column does not need to be pressed because of the carrier material. The carrier material is not powder-filled in a column.

The advantages of the present invention cannot be obtained in a conventional column such as a trapping column. This is discussed in the description of the prior art in applicants' specification.

The cited reference discloses a pre-column including a carrier material such as silica gel or an adsorption agent inserted between two sheets of a filler. The reference fails to teach that the carrier material is in the form of a membrane. As a result, the column of the reference cannot provide the above-discussed advantages of the claimed invention as it differs in structure from that claimed by applicants.

Further, the pre-column of the reference is pressure-resistant as taught at column 1, lines 10-14. It is thus suggested that the pre-column of the reference may be pressurized; however, this differs from applicants' invention.

In view of the above, the cited reference cannot be said to anticipate the claimed invention.

The rejection is thus without basis and should be withdrawn.

Rejection under 35 USC 103(a)

Claims 12-14 stand rejected under 35 USC 103(a) as being unpatentable over Ruijten '071 in view of Singleton U.S. Patent No. 5,462,660. This rejection is respectfully traversed.

The deficiencies of Ruijten '071 are discussed above. These deficiencies of Ruijten are not overcome by the additionally-cited Singleton reference, which is cited merely to teach

"routing of samples to the columns in a specific manner."

Singleton discloses an HPLC including a pre-column and a separation column. The reference otherwise is silent regarding the use of a membrane as the carrier material.

The cited references, taken either singly or together, thus do not suggest the claimed invention.

The rejection is accordingly without basis and should be withdrawn.

Request for Interview

Applicants' request an interview with the Examiner at an early date to discuss the merits of the previous rejection. In the event applicants' representatives are unable to contact the Examiner to schedule an interview prior to the Examiner's review of this response, the Examiner is requested to contact the undersigned to schedule an interview. The Examiner is thanked in advance for his assistance in this matter.

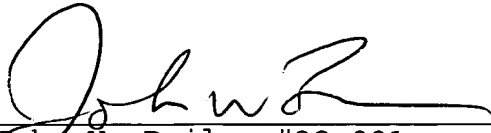
The application is now in condition for allowance, and an early indication of same is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Docket No. 0425-0781P

Respectfully submitted,

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By 
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JWB/JWH
0425-0781P

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(Rev. 04/19/2000)